

This listing of the claims replaces any and all prior versions and listings of claims in the application:

AMENDMENTS TO THE CLAIMS

1 (Withdrawn): A slider assembly comprising a plurality of sliders bonded by a debondable solid encapsulant, wherein the encapsulant is comprised of a silicon-based polymer, each slider has a surface that is free from the encapsulant, and the encapsulant-free surfaces are coplanar to each other.

2 (Withdrawn): The slider assembly of claim 1, having a contiguous planar surface comprised of at least one encapsulant region and containing the coplanar slider surfaces.

3 (Withdrawn): The slider assembly of claim 2, wherein the sliders are arranged in an array.

4 (Withdrawn): The slider assembly of claim 3, wherein the array is a rectilinear array.

5 (Withdrawn): The slider assembly of claim 4, wherein the sliders do not contact each other.

6 (Withdrawn): The slider assembly of claim 4, wherein the coplanar surfaces of the sliders are each an air-bearing surface.

7 (Withdrawn): The slider assembly of claim 6, further comprising a substrate in contact with the air-bearing surfaces.

8 (Withdrawn): The slider assembly of claim 7, wherein the substrate is comprised of a laminate of a flexible tape and an adhesive, wherein the adhesive is in contact with the air-bearing surfaces.

9 (Withdrawn): The slider assembly of claim 8, wherein the adhesive is a pressure sensitive adhesive.

10 (Withdrawn): The slider assembly of claim 8, wherein the adhesive preferentially adheres to the tape over the air-bearing surfaces.

11 (Withdrawn): The slider assembly of claim 4, wherein the encapsulant is mechanically stable for thermal cycling from about 20°C to about 100°C.

12 (Withdrawn): The slider assembly of claim 4, wherein the encapsulant is rigid.

13 (Withdrawn): The slider assembly of claim 4, wherein the encapsulant does not substantially outgas under vacuum.

14 (Withdrawn): The slider assembly of claim 4, further comprising a carrier attached to the encapsulant and/or at least one slider, wherein the carrier does not cover any of the coplanar slider surfaces.

15 (Withdrawn): The slider assembly of claim 6, further comprising a resist layer on the air-bearing surfaces, wherein the encapsulant is mechanically stable upon exposure to the resist layer or any component thereof.

16 (Withdrawn): The slider assembly of claim 15, wherein the encapsulant is subject to solvation by a solvent not found in the resist layer.

17 (Withdrawn): The slider assembly of claim 16, wherein the solvent dissolves the silicon-based polymer.

18 (Withdrawn): The slider assembly of claim 17, wherein the solvent is comprised of propylene glycol methyl ether acetate and/or N-methylpyrrolidinone.

19 (Withdrawn): The slider assembly of claim 4, wherein the silicon-based polymer is prepared via *in situ* polymerization of organosilicon prepolymers.

20 (Withdrawn): The slider assembly of claim 19, wherein the organosilicon prepolymers have an average molecular weight less than about 1,000 Daltons.

21 (Withdrawn): The slider assembly of claim 19, wherein the silicon-based polymer is prepared in via in situ polymerization using an polymeric amine catalyst.

22 (Previously presented): A method for forming a slider assembly, comprising:

(a) arranging a plurality of sliders each having a surface such that the surfaces are coplanar to each other;

(b) dispensing a silicon-based encapsulant fluid in a manner effective to fill gaps or recesses between the sliders without contacting the coplanar slider surfaces; and

(c) subjecting the dispensed encapsulant fluid to conditions effective for the fluid to form a readily debondable solid encapsulant comprising a silicon-based polymer.

23 (Original): The method of claim 22, wherein step (a) comprises placing the sliders on a laminate of a flexible tape and an adhesive such that slider surfaces contact the adhesive.

24 (Original): The method of claim 23, wherein the adhesive is resistant or impervious to solvation by the encapsulant fluid.

25 (Original): The method of claim 22, wherein the encapsulant fluid has an initial viscosity of no more than about 800 centistokes.

26 (Original): The method of claim 25, wherein the initial viscosity is no more than about 500 centistokes.

27 (Original): The method of claim 26, wherein the initial viscosity is about 20 to about 200 centistokes.

28 (Original): The method of claim 22, wherein step (c) comprises removing solvent from the encapsulant fluid.

29 (Previously presented): The method of claim 22, wherein step (c) comprises effecting crosslinking and/or polymerization in the encapsulant fluid.

30 (Withdrawn): A method for patterning an air-bearing surface of a slider, comprising:

(a) applying a resist layer on an air-bearing surface of a slider, wherein at least a portion of the slider other than the air-bearing surface is encapsulated in a debondable solid encapsulant comprising a silicon-based polymer;

(b) removing a portion of the resist layer to uncover a portion of the air-bearing surface in a patternwise manner; and

(c) adding material to and/or removing material from the uncovered portion of the air-bearing surface, thereby patterning the air-bearing surface of the slider,

wherein the encapsulant is mechanically stable upon exposure to any fluid employed in steps (a), (b), and/or (c).

31 (Withdrawn): The method of claim 30, further comprising, after step (a) and before step (b), exposing the resist layer to photons in the patternwise manner.

32. (Previously presented): The method of claim 22, wherein the solid encapsulant does not substantially outgas under vacuum.

33. (Previously presented): The method of claim 29, wherein step (c) comprises *in situ* polymerization of organosilicon prepolymers.

34. (Previously presented): The method of claim 22, wherein the silicon-based polymer has phenyl substituents.

35. (Previously presented): The method of claim 29, wherein a polymeric catalyst containing pendant amino-functionalities is employed in step (c).

36. (Previously presented): The method of claim 35, wherein a curing temperature of about 150°C or less is employed in step (c).

37. (Previously presented): The method of claim 22, further comprising a step (c) of debonding the encapsulant by means of a solvent comprising propylene glycol methyl ether acetate or N-methylpyrrolidinone.

38. (New): The method of claim 22, wherein the silicon-based polymer comprises a member selected from the group consisting of a siloxane, a silicate, and a silicon-containing pendent moiety.

39. (New): The method of claim 22, wherein the sliders are free from encapsulant.